**Pre-writing using a table layout**

**Example for 91048 using a student project to develop a coffee table**

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| **Type of technological modelling undertaken** | **Purpose of that modelling** | **Evidence derived from that modelling** | **Decision made** | **How decisions considered ‘what could happen’ and ‘what should happen’** | **How modelling identified risk** |
| Freehand sketches shown to stakeholders | Choose between various options of table | Evaluative feedback from stakeholders about the various options presented | Option C selected  But stakeholders wanted a different finish to the table top | Stakeholders expressed a preference for the imported hardwood. Considering issues around sustainability we ‘should’ only use this wood if we are confident it has been produced from sustainable plantation forests. |  |
| 3D computer model created in SketchUp | Create a 3D model of selected table to assist stakeholders to visualise the finished table | Evaluative feedback from stakeholders | Stakeholders wanted modifications to the table top edge and the shape of the legs |  | The 3D model highlighted to stakeholders there was a risk of possible injury as the table had a hard edge at shin height |
| Testing the strength of different joints | Test the suitability of a range of possible joining options | Data about the strength of each joint | Option X selected | Although testing has confirmed either joint X or Y ‘could’ be used we found out X is stronger but is also more expensive and takes longer. Considering our ethical position in that we want to make a table that will last we ‘should’ go for joint X | Using the cheap and easy joint option Y carries a risk as modelling has shown it not to be as strong or last as long as joint X |
| Mock up | To construct a full size mock up out of cheap materials to assess potential fitness for purpose | Table is a good fit in the space available. Potential stability risk. | Table will need modifications to improve stability | We have an ethical responsibility to make the table safe so despite the mock up proving the table works and is the right size for the space available we ‘should’ modify it to make it safer in response to the stability risk identified through our modelling | A stability risk was identified if young children pulled themselves up on the edge of the table |
| Types of finish | To test the suitability of various finish options | Stakeholder evaluative feedback plus data on suitability of various options | Option A selected | Modelling showed I ‘could’ use any of the four finish options as they were all technically feasible. Stakeholders preferred a finish option that was the least environmentally friendly. I decided that considering the fact the table would be used around young children and also considering the eventual disposal of the table at the end of its usable life I ‘should’ choose an alternative finish that was more environmentally friendly. |  |
| Prototyping | Establish the fitness for purpose of the completed table | Confirmation that the table meets the specifications in the brief and is fit for purpose | Table does not require further modification so it is now complete! |  | Modifications made to the table after the mock up identified a stability risk have now improved the stability of the final table |